

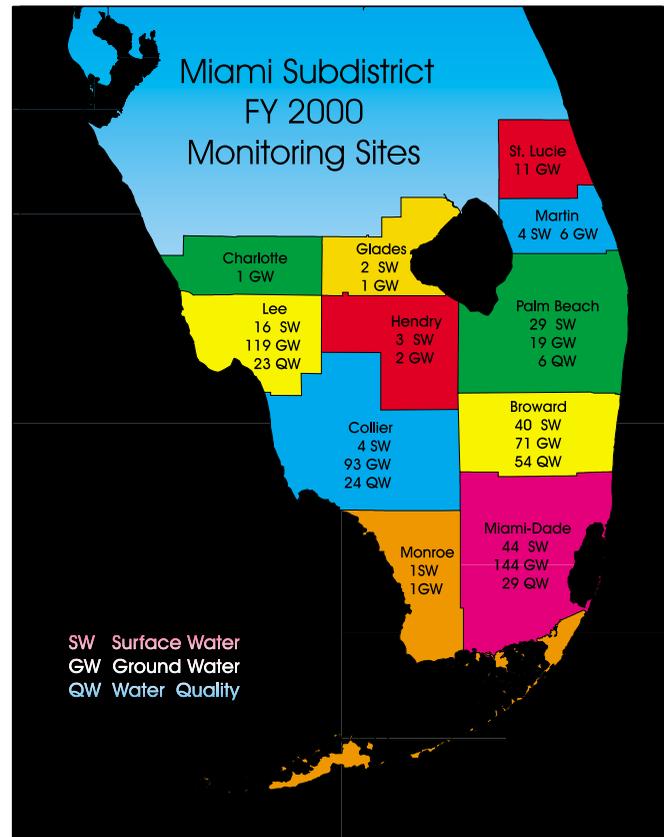
Miami Subdistrict Activities

Fiscal Year 2000

The Miami Subdistrict office and its field office in Ft Myers work in Miami-Dade, Broward, Palm Beach, Lee, Collier, Hendry, Glades, Martin, Charlotte, St. Lucie, and Monroe Counties. The total FY 2000 funding for work by the Miami Subdistrict is about \$6.3 million. Costs are shared by the U.S. Geological Survey, the U.S. Army Corps of Engineers, Everglades National Park, the South Florida Water Management District, Dade, Broward and Lee Counties, numerous towns and cities, and several public utilities. Although there is some overlap, Subdistrict efforts fall into two categories: hydrologic investigations and hydrologic data collection.

Scientific investigations are of limited duration, usually 2 to 5 years, and address specific hydrologic questions or problems. In FY 2000, about \$2.9 million has been allocated to fund hydrologic studies operated out of the Miami Subdistrict office. These studies include the following:

- Sustainability of the Floridan aquifer system
- Movement of the saltwater interface in Lower Tamiami Aquifer near Bonita Springs
- Total suspended solids estimation in estuarine environments
- Lower West Coast saltwater intrusion
- Real-time water shortage detection network
- Flows to tide in South Florida
- Impact of 20th century water-management and land-use practices on the coastal hydrology of southeast Florida
- Hydrogeologic characterization and mapping of two semiconfining units in the surficial aquifer system
- Determining contributions to public supply wells using regional ground-water flow model and GIS interface
- South Florida Ecosystem database development
- Surface-water flows in the interior canal networks south of Lake Okeechobee
- Ground-water discharge to Biscayne Bay
- Simulation of flow and transport to Florida Bay through the Southern Inland and Coastal Systems
- Ground-water seepage beneath Levees 30 and 31N
- Freshwater discharge into east Florida Bay
- Characterization of Aquifer Storage and Recovery source water



Hydrologic data collection is an ongoing effort although the sites monitored may change over time. Data collection activities are allotted \$3.4 million in FY 2000, and include the following:

- 143 surface-water monitoring stations for stage, discharge, rainfall, temperature, specific conductance or chloride analysis (about 50 surface-water sites are instrumented for more than one type of data collection).
- 467 wells monitored for water levels at intervals ranging from intermittent to every 60 minutes; 110 of these wells are also monitored for specific conductance and chloride
- 119 of the above sites are equipped to provide real time data; the data for 50 ground-water sites and 34 surface water sites are served on the Miami Subdistrict homepage.